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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,564	10/31/2003	Tapesh Yadav	037768-0173	1121
22428	7590	03/09/2007	EXAMINER	
FOLEY AND LARDNER LLP			TSOY, ELENA	
SUITE 500			ART UNIT	PAPER NUMBER
3000 K STREET NW			1762	
WASHINGTON, DC 20007				
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE		DELIVERY MODE	
3 MONTHS	03/09/2007		PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/698,564	YADAV, TAPESH	
	<b>Examiner</b>	<b>Art Unit</b>	
	Elena Tsoy	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 16 February 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 2,5,7-10,21-23,25,26 and 28-30 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3,4,6,11-20,24 and 27 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 31 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/3/06.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

***Election/Restrictions***

1. Applicant's election with traverse of Group I, claims 1-29, species A(i) (Claim 6), B(ii) (Claim 3), C (ii) in the reply filed on 2/16/2007 is acknowledged. The traversal is on the ground(s) that the evidence and explanation do not identify a serious burden. This is not found persuasive because the examination of Group II and non-elected species would require search of different subject matter and different classes and subclasses thereby putting a serious burden on the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-30 are pending in the application. Claims 2, 5, 7-10, 21-23, 25, 26, 28-29, and 30 are withdrawn from consideration as directed to a non-elected invention.

***Claim Objections***

2. Claim 4 is objected to because of the following informalities: "wherein the metal-containing precursor comprises of multiple metals" should be changed to "wherein the metal-containing precursor comprises ~~of~~multiple metals".

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 3, 4, 6, 11-20, 24, and 27 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for 1500-4000<sup>0</sup>C, does not reasonably provide

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enablement for unlimited temperature of greater than 2500<sup>0</sup>C (Claim 1) or greater than 3000<sup>0</sup>C (Claim 1), e.g. 1,000,000<sup>0</sup>C or more. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 3, 4, 6, 11-20, 24, and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites, “feeding the metal-containing precursor to a reaction zone; adding a reactive fluid to the metal-containing precursor in the **reaction zone** thereby creating a stream comprising *reacted* metal-containing precursor; conducting high temperature processing of the stream comprising reacted metal-containing precursor at temperatures greater than 2500<sup>0</sup>C to create a vapor”, which is confusing because it reads as if the reactive fluid is not reacted in the reaction zone; as if the metal-containing precursor in the **reaction zone** is not in a vaporized form; and as if *reacted* metal-containing precursor is converted into a **vapor** at 2500<sup>0</sup>C. However, the specification discloses that a *stream* of metal-containing precursor and a reactive fluid are introduced into the **reaction zone** (reactor) as a *stream* of **vaporized** reactants, and the **vaporized** reactants react in the **reaction zone** (See Figs. 3-8; P67-79). For examining purposes the phrase was interpreted as “feeding the metal-containing precursor to a reaction zone thereby creating a vapor of the precursor; adding a reactive fluid to the metal-containing precursor in the reaction

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zone thereby creating a stream comprising reacted metal-containing precursor and reactive fluid; conducting high temperature processing of the stream comprising reacted metal-containing precursor at temperatures greater than 2500<sup>0</sup>C to create a vapor".

Claim 4 recites, "wherein the metal-containing precursor comprises of multiple metals", which renders the claim indefinite because it is not clear whether a molecule of the precursor comprises multiple metals or the metal-containing precursor comprises a *mixture* of multiple metal-containing precursors. For examining purposes the phrase was interpreted according to the specification (See page 21, lines 1-3) as "wherein the metal-containing precursor is a *mixture* of multiple metal-containing precursors ~~comprises of multiple metals~~".

### ***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1, 3, 4, 6, 11-15, 17-19, and 24 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-5, 7 of

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copending Application No. 11/113,320. Although the conflicting claims are not identical, they are not patentably distinct from each other because Application '320 relates to the same subject matter of making nanoparticles by thermo-processing a precursor combined with a reactive fluid (See claims 4-5, 7) at temperature *greater* than 2500 K which would include claimed greater than 3000<sup>0</sup>C of the current application. All other limitations would be obvious as being conventional in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Claims 1, 3, 4, 6, 11-15, 17-19, and 24 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9, 16-24, 31-32 of copending Application No. 11/491,484. Although the conflicting claims are not identical, they are not patentably distinct from each other because Application '484 relates to the same subject matter of making nanoparticles by thermo-processing a precursor combined with a reactive fluid (See claims 4-5, 7) at temperature *greater* than 3000 K which would include claimed greater than 3000<sup>0</sup>C of the current application. All other limitations would be obvious as being conventional in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 1, 3, 4, 6, 11-15, 17-19, and 24 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4, 7, and 12-14 of copending Application No. 10/292,263. Although the conflicting claims are not identical, they are not patentably distinct from each other because Application '263 relates to the same subject matter of making nanoparticles by thermo-processing a precursor combined with a reactive

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fluid at temperature greater than 3000<sup>0</sup>C or greater than 5000<sup>0</sup>C. All other limitations would be obvious as being conventional in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11: Claims 1, 3, 4, 6, 11-15, 17-19, and 24 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9, 16-24, 31-43, 45, 46, and 50-58 of copending Application No. 10/614,845. Although the conflicting claims are not identical, they are not patentably distinct from each other because Application '484 relates to the same subject matter of making nanoparticles by thermo-processing a precursor combined with a reactive fluid at temperature *greater* than 3000 K which would include claimed greater than 3000<sup>0</sup>C of the current application. All other limitations would be obvious as being conventional in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claims 1, 3, 4, 6, 11-15, 17-19, and 24 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4, 7, 11-15, 19, 22, 24-26, and 29 of copending Application No. 10/315,271. Although the conflicting claims are not identical, they are not patentably distinct from each other because Application '484 relates to the same subject matter of making nanoparticles by thermo-processing a precursor combined with a reactive fluid (See claims 4-5, 7) at temperature greater than 3000<sup>0</sup>C. All other limitations would be obvious as being conventional in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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13. Claims 1, 3, 4, 6, 11-15, 17-19, and 24 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5, 11, 13, 16-17, 21-23, and 27 of copending Application No. 10/315,272. Although the conflicting claims are not identical, they are not patentably distinct from each other because Application '484 relates to the same subject matter of making nanoparticles by thermo-processing a precursor combined with a reactive fluid (See claims 4-5, 7) at temperature greater than 3000<sup>0</sup>C. All other limitations would be obvious as being conventional in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 1, 3, 4, 6, 11-15, 17-20, and 24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bickmore et al (US 5984997).

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The Examiner Note: the current Application is DIV of 10/004,387 and CIP of 5 parent applications. The current Application contains a limitation “greater than 2500<sup>0</sup>C” in Claim 1 and “greater than 3000<sup>0</sup>C” in Claim 15. This limitation was added *first* time to the Divisional Application 10/004,387 (now Patent 6,652,967). Therefore, the current Application is entitled to priority date of the Divisional Application ‘387, which is 8/8/2001 (not to filing date of earliest parent application 08/707,341).

Bickmore et al disclose a method of manufacturing powder comprising: preparing solutions or suspensions or emulsions (See column 4, lines 33-35) of metal-containing precursors of multiple metals (See column 3, lines 52-67) such as nitrate, nitrites, nitriles, nitrides, carbonates, bicarbonates, hydroxides, cyanos, organometallics, carboxylates, amines, and amides (See column 4, lines 30-33); feeding *atomized* metal-containing precursor (i.e. claimed spraying) or, alternatively, carried in a gas or a mix of gases (See column 5, lines 19-20) to a reaction zone thereby creating a vapor of the precursor; adding nitrogen, hydrogen (See column 2, lines 33-34), air, oxygen or ammonia (claimed reactive fluid) to the reaction zone (See column 5, lines 23-25); conducting *combustion* (See column 5, lines 19-46) using any kind of flame including *externally heated* flame, *multiple burner flame* or a combination of different flames (See column 5, lines 44-46) at temperatures in excess of 600<sup>0</sup>C at which diffusion kinetics will be sufficiently fast that a compositionally uniform powder will be produced (See column 5, lines 46-50). The combustion product gases are *quenched* (See column 5, line 60) to freeze the growth and further reaction of the product by expansion of gases, addition of coolant gases or liquids, addition of materials which absorb heat (for example, heat absorption associated with phase transformation of liquid nitrogen to gaseous nitrogen), radiative cooling, conductive cooling, convective cooling, application of cooled surface, or impinging into liquid (See column 5, lines 64-67 to column 6, lines 1-4); and

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then nanoscale powders (See column 2, lines 45-49; column 4, lines 14-22) are collected (See column 5, lines 60-63) by separating the fine powder-containing stream into gas and solid stream using bag houses containing polymeric or inorganic filters, electrostatic filtration, surface deposition on cold surfaces followed by scraping with a blade, centrifugal separation, in-situ deposition in porous media, and absorption or adsorption in liquids or solids (See column 6, lines 13-23).

It is the Examiner's position that temperatures in excess of 600<sup>0</sup>C include claimed temperature of "greater than 3000<sup>0</sup>C" since Bickmore et al do not limit combustion temperatures.

As to claim 6, the reactive fluid comprises oxygen (See column 9, lines 23-26).

As to claim 12, externally heated flame and/or multiple burner flame read on claimed concentric zone. In any case, the limitations of dependent claim 12 are described in the specification as being not subject matter of claimed invention (See specification, page 27, P64, five last lines).

As to claim 19, the method includes instrumentation for quality control (See examples).

17. Claims 1, 3, 4, 6, 11-15, 17-20, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konig et al (US 5,356,120) in view of Holzl (US 3,565,676).

Konig et al disclose a method of manufacturing nanoscale powder comprising providing a metal-containing precursor such as  $\text{BCl}_3$ , boric acid esters, boran  $\text{SiCl}_4$ , other chlorosilanes, silanes, metal halides, partly hydrogenated metal halides, metal hydrides, metal alcoholates, metal alkyls, metal amides, metal azides, metal boranates and metal carbonyls (See column 2, lines 55-61); evaporating the metal-containing precursor, which may be in solid or liquid state (See column 4, lines 66-68) and feeding *evaporated* metal-containing precursor (See column 5, lines 1-2) and a pre-heated *reactive fluid* such as  $\text{H}_2$ ,  $\text{NH}_3$  or  $\text{CH}_4$  or air and/or oxygen (See column 5, lines 7-8) to

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a reaction zone; conducting high temperature processing of the stream at temperatures 500-200<sup>0</sup>C (See column 5, lines 19-20) thereby producing a metal or ceramic powder; separating the metal or ceramic powder in a back-blowing filter at temperatures 300-1000<sup>0</sup>C (claimed cooling) (See column 6, lines 1-5); cooling the powder in a cooling container 12 by blowing in various gas/vapour mixtures (claimed quenching) (See column 6, lines 26-31); and collecting the powder (See column 6, lines 28-29).

Konig et al fail to teach that the high temperature processing was conducted at temperatures "greater than 2500<sup>0</sup>C (Claim 1) or 3000<sup>0</sup>C (Claim 15).

Holzl teaches that WF<sub>4</sub>, WF<sub>3</sub> and WF<sub>2</sub> formed in the reaction zone as by-products during chemical vapor decomposition of WF<sub>6</sub> are non-volatile at the deposition temperatures and become trapped in as a solid impurity in the deposited tungsten. These by-products can be vaporized only at temperatures around 1800-2500<sup>0</sup>C. See column 2, lines 5-15. In other words, the temperature of thermal processing of the metal precursor in a reaction zone would depend on a particular metal precursor. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have conducted thermal processing of the metal precursor in a reaction zone in Konig et al at very high temperatures including claimed temperatures of greater than 2500<sup>0</sup>C or 3000<sup>0</sup>C depending on vaporization temperature of a metal precursor or by-products with the expectation of providing the desired non-contaminated mono-dispersed powder.

As to claim 4, Konig et al teach that nano- or micro-dispersed (crystalline or amorphous) metal and/or ceramic powders, preferably metal and/or ceramic powder, carbides, nitrides, borides, silicides, phosphites, sulphides, oxides and/or combinations thereof containing the elements B, Al, Si, Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W, La, Y, Fe, Co, Ni or these elements alone or

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in *combination with one another* (i.e. alloy) can be produced using their method (See column 4, lines 21-28).

As to claim 12, Konig et al do not limit their teaching to any of known energy sources such as plasma, laser beam or *flame* (See column 1, lines 26-27). Therefore, any known flame energy sources can be used in Konig et al including well known concentric burners. In any case, the limitations of dependent claim 12 are described in the specification as being not subject matter of claimed invention (See specification, page 27, P64, five last lines).

As to claim 19, Konig et al teach instrumentation for quality control (See column 9, lines 3-20).

18. Claims 16 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bickmore et al in view of Umeya et al (US 5,489,449).

Bickmore et al are applied here for the same reasons as above. Bickmore et al further teach that metal-containing precursors of multiple metals can be used for making mixed metal compounds (See column 3, lines 52-67). Bickmore et al also teach that with varying combustion conditions, the product chemistry may be varied to obtain e.g. non-stoichiometric *reduced* oxide with the use of reducing gases such as **hydrogen** (See column 2, lines 29-33). Obviously, metal alloy powder may be produced in the presence of hydrogen.

Bickmore et al fail to teach that carrier particles are added to a later stage of the high temperature processing (Claim 16); the powder manufactured comprises carrier particles comprising a ceramic and attached particles comprising an alloy (Claim 27).

Umeya et al teach that ultrafines of a metallic material such as a **metal alloy** (See column 2, lines 53-54, 59-65) formed in a vapor phase can be used for producing coated non-metallic particles such as **ceramic** particles (See column 2, line 3) which are coated on the surface with

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ultrafines of the metallic material by introducing the particles of the inorganic material to be coated into a stream carrying the and bringing the particles to be coated into contact with said ultrafines in a fluidized state. The coated particles are used for the production of a sintered product. See column 2, lines 23-35. The ultrafines of the metallic materials used as the coating material can be prepared by known procedures, for example, by arc-discharge plasma jet, arc dissolution, high-frequency plasma, gas evaporation or chemical means such as reduction or oxidation of vapor of inorganic non-metallic or metallic materials (See column 3, lines 1-10). The particles of the core material are introduced into a vapor stream containing the ultrafines of the coating material by any means, e.g., in the form of a dispersant in a vapor phase carried by a carrier gas and the ultrafines are contacted with the particles of the core material in a fluidized state (See column 3, lines 12-17). In that case, the ultrafines as prepared by the physical or chemical means are in a nascent state, i.e., in an activated state containing a free radical. When the ultrafines come into contact with the particles of the core material, the ultrafines will be covalently bonded to the particles, by which both particles are chemically bonded together strongly. See column 3, lines 17-23.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a process of Bickmore et al for producing ceramic particles coated with a metallic material such as metal alloy by adding to a ceramic powder formed in the reaction zone of the flow reactor core ceramic particles.

19. Claims 16 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konig et al in view of Holzl, further in view of Umeya et al.

Konig et al in view of Holzl are applied here for the same reasons as above. As was discussed above, Konig et al teach that the process may be used for making metal alloy powder

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(See column 4, lines 21-28). Konig et al in view of Holzl fail to teach that carrier particles are added to a later stage of the high temperature processing (Claim 16); the powder manufactured comprises carrier particles comprising a ceramic and attached particles comprising an alloy (Claim 27).

Umeya et al are applied here for the same reasons as above.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a process of Konig et al in view of Holzl for producing ceramic particles coated with a metallic material such as metal alloy by adding to a ceramic powder formed in the reaction zone of the flow reactor core ceramic particles.

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kirshenbaum et al (US 3,734,790) show concentric type burner (See column 2, lines 26-34).

David et al (US 4485085) pyrolyzing fibers impregnated with an aqueous solution containing metal salts at a temperature between about 500-**2500<sup>0</sup>C** in the presence of molecular oxygen to form ferrimagnetic M<sub>1</sub>Fe<sub>2</sub>O<sub>4</sub> spinel fibers.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Thursday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy  
Primary Examiner  
Art Unit 1762

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PRIMARY EXAMINER  
*Etsoy*

March 6, 2007